### Memorandum Item for November 14, 2001 Business Meeting

Date: November 6, 2001 Telephone: (916) 654-3999 File: Avenal Energy Project

To: William J. Keese, Chairman Michal C. Moore, Ph.D Robert A. Laurie Robert Pernell Arthur H. Rosenfeld, Ph.D

From: California Energy Commission 1516 Ninth Street Sacramento, CA 95814-5512

#### Subject: AVENAL ENERGY DATA ADEQUACY RECOMMENDATION (01-AFC-20)

On October 9, 2001, Duke Energy Avenal, LLC (Duke Avenal) filed an Application for Certification (AFC) seeking approval from the California Energy Commission to construct and operate a nominal 600 MW power plant called the Avenal Energy Project (AEP). Based on staff's analysis, the AFC does not meet the requirements of California Code of Regulations, Title 20, Section 1704, Appendix B, for the 12-month AFC review process. We therefore recommend that the Energy Commission find the AFC inadequate and adopt the enclosed list of deficiencies.

Attachment A contains an overview of whether each technical discipline evaluated is adequate or inadequate. Attachment B contains staff's detailed data adequacy worksheets that describe staff's findings for each information requirement. Staff has determined that the AFC is data inadequate in eight of 22 technical categories.

At the Energy Commission's business meeting on November 14, 2001, I will be recommending that the Energy Commission not accept the AFC until all the additional information specified in Attachment B is supplied. Pursuant to California Code of Regulations, Title 20, Section 1709 (c), if the Energy Commission accepts my recommendation, the Energy Commission shall indicate, in writing, those parts of the AFC which fail to meet the information requirements and the manner in which it can be made complete.

If you have any questions, please call Jim McKinney, Energy Commission Project Manager for the Avenal case, at (916) 654-3999.

STEVE LARSON
Executive Director

MD:JM

Data Adequacy Letter Page 2

### Attachments

CC: Mr. Robert Cochran

Project Manager Duke's Avenal Energy Project

# ATTACHMENT A OVERVIEW OF ENERGY COMMISSION STAFF'S DATA ADEQUACY DETERMINATION Avenal Energy Project 01-AFC-20

TECHNICAL AREA	ATTACHMENT PAGE No.	ADEQUATE?
Air Quality	1	No
Alternatives	6	Yes
Biological Resources	7	Yes
Cultural Resources	11	No
Efficiency	14	Yes
Facility Design	17	Yes
Geological Resources	23	Yes
Hazardous Materials Handling	25	Yes
Land Use	27	No
Noise	31	No
Paleontological Resources	35	Yes
Project Overview	38	Yes
Public Health	42	No
Reliability	44	Yes
Socioeconomics	47	Yes
Soil Resources	51	Yes
T-Line Safety and Nuisance	53	Yes
Traffic and Transportation	56	Yes
Transmission System Eng.	59	No
Visual Resources	63	No
Waste Management	66	Yes
Water Resources	69	No
Worker Safety	74	Yes

### **ATTACHMENT B**

## **ENERGY COMMISSION STAFF'S**List of Data Inadequacies

Avenal Energy Project 01-AFC-20

November 6, 2001

Adequacy Issue:	Adequate	Inadequate	X DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	11/7/01
Technical Area:	Air Quality		Project:	Avenal Energy Project	Technical	Staff:	Birds	all/Walters
Project Manager:	Jim McKinney		Docket:	01-AFC-20	Technical	l Senior	: Matt I	Layton

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B	provide a discussion of the existing site	§6.2.1 Pages 6.2-1 to 6.2-3	Yes	
(g) (1)	conditions, the expected direct, indirect and cumulative impacts due to the construction,	§6.2.5.1 Pages 6.2-27 to 6.2-50		
	operation and maintenance of the project, the	§6.2.5.4 Pages 6.2-52 to 6.2-53		
	measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Appendix 6.2-4 Page 6.2-4.2		
		§6.2.8 Page 6.2-62		
Appendix B	The information necessary for the air pollution		No	Applicant filed its application with the
(g) (8) (A)	control district where the project is located to complete a Determination of Compliance.			SJVAPCD on 10/15/01. Applicant and the District are working to resolve a few minor issues so that the District can issue its completeness letter. CEC staff are awaiting issuance of the District's completeness letter.
Appendix B	The heating value and chemical characteristics	§6.2.5.1.1	Yes	
(g) (8) (B)	of the proposed fuels, the stack height and diameter, the exhaust velocity and temperature,	Table 6.2-15, Page 6.2-28		
	the heat rate and the expected capacity factor	Appendix 6.2-2		
	of the proposed facility.	Table 6.2-2.2, Page 6.2-2.3		
		Appendix 6.2-1, Table 6.2-1.1		
		§6.2.5.1.2		
		Table 6.2-24, Page 6.2-43		
		§1.6, Page 1-15		
Appendix B	A description of the control technologies	§1.8.1, Page 1-17	Yes	
(g) (8) (C)	proposed to limit the emission of criteria pollutants.	Appendix 6.2-5		
	Ferrance.	Tables 6.2-5.5 and 6.2-5.6		
		§6.2.6.3, Pages 6.2-56 to 6.2-58		

Adequacy Issue:	Adequate	Inadequate	X DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	11/7/01
Technical Area:	Air Quality		Project:	Avenal Energy Project	Technical	Staff:	Birds	all/Walters
Project Manager:	Jim McKinney		Docket:	01-AFC-20	Technical	l Senior	: Matt I	Layton

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (8) (D)	A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.	§2.3.6.4, Pages 2-38 to 2-39 Appendix 6.2-1 Table 6.2-1.3, Page 6.2-1.3	Yes	
Appendix B (g) (8) (E)	The emission rates of criteria pollutants from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all secondary emission sources.	Table 6.2-21, Page 6.2-32	No	An estimate of criteria pollutant emissions from secondary sources (e.g., ammonia delivery or other routine deliveries, etc.)
Appendix B (g) (8) (F)	A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.	Tables 6.2-16 to 6.2-20, Pages 6.2-28 to 6.2-32 Appendix 6.2, Table 6.2-1.1	Yes	
Appendix B (g) (8) (G)	The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary.	§§6.2.3.1 to 6.2.3.7 Tables 6.2-2 to 6.2-9 Pages 6.2-6 to 6.2-13	Yes	
Appendix B (g) (8) (H)	One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution control district.	Electronic Submittal on CD-R. §6.2.5.1.2, Page 6.2-37	Yes	

Adequacy Issue:	Adequate	Inadequate	X DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	11/7/01
Technical Area:	Air Quality		Project:	Avenal Energy Project	Technical	Staff:	Birds	all/Walters
Project Manager:	Jim McKinney		Docket:	01-AFC-20	Technical	l Senior	: Matt I	Layton

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (8) (H) (i)	If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995), which is incorporated by reference in its entirety.)		N/A	
Appendix B (g) (8) (H) (ii)	The data shall include quarterly wind tables and wind roses, ambient temperatures, relative humidity, stability and mixing heights, upper atmospheric air data, and an analysis of whether this data is representative of conditions at the project site.	Electronic Submittal on CD-R. Figures 6.2-1 to 6.2-5e Pages 6.2-64 to 6.2-74	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:			
Appendix B (g) (8) (I) (i)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct inert pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM <sub>10</sub> ) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO <sub>x</sub> ), sulfur dioxide (SO <sub>2</sub> ), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM <sub>10</sub> )] from construction-related equipment;	Electronic Submittal on CD-R. Appendix 6.2-4 §6.2.5.4, Pages 6.2-52 to 6.2-53	Yes	

Adequacy Issue:	Adequate	Inadequate	X D	ATA ADEQUACY WORKSHEET	Revision No.	0	Date	11/7/01
Technical Area:	Air Quality		Projec	: Avenal Energy Project	Technica	l Staff:	Bird	sall/Walters
Project Manager:	Jim McKinney		Docke	: _ 01-AFC-20	Technica	I Senior:	: Matt	Layton

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (8) (I) (ii)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct inert criteria pollutant (NO <sub>x</sub> , SO <sub>2</sub> , CO and PM <sub>10</sub> ) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions; and	Electronic Submittal on CD-R. Appendix 6.2-1 and 6.2-2 Table 6.2-2.2 §6.2.5.1.2 Tables 6.2-23 and 6.2-24 Pages 6.2-40 to 6.2-44	Yes	
Appendix B (g) (8) (I) (iii)	A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard.	§6.1.4, Table 6.1-1, Page 6.1-5 Appendix 6.2-7, Page 6.2-7.2	Yes	
Appendix B (g) (8) (J)	If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information:			
Appendix B (g) (8) (J) (i)	The quantity of offsets needed;	Tables 6.2-35 to 6.2-36 Pages 6.2-58 to 6.2-60	Yes	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions; and	Table 6.2-36, Page 6.2-59 Appendix 6.2-6, Page 6.2-6.1 Confidential Filing to CEC.	Yes	
Appendix B (g) (8) (J) (iii)	Method of emission reduction.	Table 6.2-36, Page 6.2-59 Appendix 6.2-6, Page 6.2-6.1 Confidential Filing to CEC.	Yes	

Adequacy Issue:	Adequate	Inadequate	X DA	TA ADEQUACY WORKSHEET	Revision No.	0	Date	11/7/01
Technical Area:	Air Quality		Project:	Avenal Energy Project	Technica	l Staff:	Bird	sall/Walters
Project Manager:	Jim McKinney		Docket:	01-AFC-20	Technica	l Senior	: Matt	t Layton

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (8) (K)	A topographic map containing contour and elevation data, at a scale of 1:24,000, showing the area within 6 miles of the power plant site.	Submitted on USGS 7.5 minute quadrangles.	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 6.2-14 Pages 6.2-25 and 6.2-26 §6.2.6, Pages 6.2-53 to 6.2-61	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.2-10, Page 6.2-14 Table 6.2-14 Pages 6.2-25 and 6.2-26	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	§6.2.6, pp 6.2-53 to 6.2-61	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 6.2-10, Pages 6.2-14	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Not found.	No	Schedule for PDOC/FDOC and PSD permit approval and steps taken to obtain permits.

Revision No. 0 Adequacy Issue: Adequate Inadequate Date 10/23/01 **DATA ADEQUACY WORKSHEET** Technical Area: **Alternatives** Technical Staff: Jim McKinney / Mary Dyas Project: Avenal Energy Project Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Paul Richins

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (D)	A description of how the site and related facilities were selected and the consideration given to engineering constraints, site geology, environmental impacts, water, waste and fuel constraints, electric transmission constraints, and any other factors considered by the applicant.	AFC. Section 1.7, Page 1-16. Section 2.3.1, Page 2-20 Section 5.0, Page 5-1 to 5-32	Yes	
Appendix B (f) (1)	A discussion of the range of reasonable alternatives to the project, or to the location of the project, including the no project alternative, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and an evaluation of the comparative merits of the alternatives. In accordance with Public Resources Code section 25540.6(b), a discussion of the applicant's site selection criteria, any alternative sites considered for the project, and the reasons why the applicant chose the proposed site.	AFC Section 5.0 Page 5-1 to 5-32	Yes	
Appendix B (f) (2)	An evaluation of the comparative engineering, economic, and environmental merits of the alternatives discussed in subsection (f)(1).	AFC. Table 5.1-1	Yes	

Technical Area: Biological Resources Project: Avenal Energy LLC Technical Staff: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction,	Existing site conditions: Sec. 6.6.1.4.2, Page 6.6-17	Yes	
	operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the	Direct, indirect, and cumulative impacts: Sec. 6.6.2, Pages 6.6-27 to 6.6-37	Yes	
	effectiveness of the mitigation.	Mitigation measures: Sec. 6.6.3, Page 6.6-39	Yes	
		Monitoring plans: Sec. 6.6.3, Page 6.6-39	Yes	
Appendix B	A regional overview and discussion of biological	Regional overview: Sec.	Yes	
(g) (13) (A)	resources, with particular attention to sensitive biological resources near the project and a map	6.6.1.2, Pages. 6.6-2 to 6.6		
	at a scale of 1:100,000 (or some other suitable scale) showing their location in relation to the project.	100,000 scale map: Appendix 6.6-1, Figure 7	Yes	
Appendix B	A discussion and detailed maps at a scale of	Detailed maps of biological	Yes	
(g) (13) (B)	1:6,000, of the biological resources at the site of the proposed project and related facilities, and in areas adjacent to them, out to a mile from the site and 1000 feet from the outer edge of linear	resources at project site and related facilities: Appendix 6.6-1, Figure 7		
	facility corridors. Include a list of the species actually observed and those with a potential to occur. The discussion and maps shall address the distribution of community types, denning or nesting sites, population concentrations,	List of species seen and those likely to occur: Appendix 6.6-1, Pages. 22, 23	Yes	
	migration corridors, breeding habitats, and the presence of sensitive biological resources.	Sensitive species seen: Appendix 6.6-1, Figure 7	Yes	

Technical Area: Biological Resources Project: Avenal Energy LLC Technical Staff: Rick York

Project Manager: \_\_Jim McKinney \_\_\_\_\_ Docket: \_\_01-AFC-20 \_\_\_\_\_ Technical Senior: \_\_Dr. Jim Brownell

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (C)	A description of all studies and surveys used to provide biological information about the project site, including seasonal surveys and copies of the California Department of Fish and Game's Natural Diversity Data Base Survey Forms, "California Native Species Field Survey Forms", and "California Natural Community Field Survey Forms", completed by the applicant. Include the dates and duration of the studies, methods used to complete the studies, and the names and qualifications of individuals conducting the studies.	Studies and survey methods: Sec. 6.6.1.4.1, Pages 6.6-14 to 6.6-17.  CNDDB field survey forms: Appendix 6.6-1  Names, qualifications, of individuals who conducted the studies: Appendix 6.6-1	Yes Yes Yes	
Appendix B (g) (13) (D)	A discussion of all permanent and temporary impacts to biological resources from site preparation, construction activities, and plant operation. Discussion of impacts must consider impacts from cooling tower drift, and from the use and discharge of water during construction and operation. For facilities which use oncethrough cooling or take or discharge water directly from or to natural sources, discuss impacts resulting from entrainment, impingement, thermal discharge, effluent chemicals, type of pump (if applicable), temperature, volume and rate of flow at intake and discharge location, and plume configuration in receiving water.	Impacts: Section 6.6.2, Pages 6.6-27 to 6.6-37 Cooling tower drift: Sec. 6.6.2.3, Page 6.6-33	Yes	
Appendix B (g) (13) (E)	A discussion of the following:			
Appendix B (g) (13) (E) (i)	All measures proposed to avoid and/or reduce any adverse impacts;	Mitigation measures: Sec. 6.6.3, Page 6.6-39	Yes	
Appendix B (g) (13) (E) (ii)	All measures proposed to mitigate any adverse impacts, including any proposals for off-site mitigation; and	Mitigation measures: Sec. 6.6.3, Page 6.6-39	Yes	

Technical Area: **Biological Resources** Project: Avenal Energy LLC Technical Staff: Rick York

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Dr. Jim Brownell

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (E) (iii)	Any educational programs proposed to enhance employee awareness in order to protect biological resources.	Worker education program: Sec. 6.6.2.2, Page 6.6-31	Yes	
Appendix B (g) (13) (F)	A discussion of compliance and monitoring programs proposed to ensure the effectiveness of mitigation measures incorporated into the project.	Mitigation effectiveness monitoring: Sec. 6.6.3, Page 6.6-39	Yes	
Appendix B (g) (13) (G)	A discussion of native fish and wildlife species of commercial and/or recreational value that could be impacted by the project.	Commercial species: Sec. 6.6.1, Page 6.6-1	Yes	
Appendix B (g) (13) (H)	For purposes of this section, sensitive biological resources are one of the following:			
Appendix B (g) (13) (H) (i)	Species listed under state or federal Endangered Species Acts;	State & federally listed species: Table 6.6-1, Pages. 6.6-7 to 6.6-11	Yes	
Appendix B (g) (13) (H) (ii)	Resources defined in sections 1702 (q) and (v) of Title 20 of the California Code of Regulations; and	Title 20 resources: Table 6.6-1, Pages. 6.6-7 to 6.6-11	Yes	
Appendix B (g) (13) (H) (iii)	Species or habitats identified by legislative acts as requiring protection.	Sensitive species: Table 6.6-1, Pages 6.6-7 to 6.6-11	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	LORS table: Table 6.6.3, Pages 6.6-40 to 6.6-42	Yes	

Technical Area: Biological Resources Project: Avenal Energy LLC Technical Staff: Rick York

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Agency permit table: Table 6.6.3, Pages 6.6-40 to 6.6-42	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	LORS compliance: Table 6.6.3, Pages 6.6-40 to 6.6-42	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Agency contacts: Table 6.6.4, Page 6.6-43	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Permit schedule: Table 6.6.3, Pages 6.6-40 to 6.6-42	Yes	

Adequacy Issue:	Adequate	Inadequate _	_ <b>X</b> _	DATA ADEQUACY WORKSHEET	Revision No. 0	Date 10/22/01	
Technical Area:	Cultural Reso	ources	F :	Project Avenal Energy Project	Technical Staff:	Paul Shattuck/Gary Reinoehl	
				Docket			
Project Manager:	Jim McKinney		:	01-AFC-20	Technical Senior:	Dale Edwards	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	AFC Vol. 1, Page 6.7-2 AFC Vol. 1, Pages 6.7-10 to 12	Yes	
Appendix B (g) (2) (A)	A brief summary of the ethnology, prehistory, and history of the region in which the project site and related facilities are located and maps at a scale of 1:24,000, indicating areas of ethnographic occupation. The region may vary depending on the extent of the territory occupied or used by prehistoric cultures indigenous to the area in which the project is located.	AFC Vol. 1, Page 6.7-4 AFC Vol. 1, Figure 6.7-1, Page 6-7-3	Yes	
Appendix B (g) (2) (B)	A description of all literature searches and field surveys used to provide information about known cultural resources in the project vicinity. If survey records of the area potentially physically affected by the project are not available, and the area has the potential for containing significant cultural resources, the applicant shall submit a new or revised survey for any portion of the area lacking comprehensive survey data. A discussion of the dates of the surveys, methods used in completing the surveys, and the identification and qualification of the individuals conducting the surveys shall be included.	AFC Vol. 1, p. 6.7-2 AFC Vol. 1, Page 6.7-2 and 6.7-4	No	Please provide a technical report detailing the findings of field surveys covering both archaeology and the built environment.

Adequacy Issue:	Adequate	Inadequate -	<b>X</b>	DATA ADEQUACY WORKSHEET	Revision No. 0	Date 10/22/01	
Technical Area:	Cultural Reso	ources	Pro	ject Avenal Energy Project	Technical Staff:	Paul Shattuck/Gary Reinoehl	
			Do	cket			
Project Manager:	Jim McKinney		:	01-AFC-20	Technical Senior:	Dale Edwards	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (2) (C)	A discussion of the sensitivity of the project area described in subsection (g)(2)(A) and the presence and significance of any known archeological sites and other cultural resources that may be affected by the project. Information on the specific location of archeological resources shall be included in a separate appendix to the application and submitted to the Commission under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq.	AFC Vol. 1, Page 6.7-8	Yes	
Appendix B (g) (2) (D)	A summary of contacts and communications with, and responses from, Native American representatives who may have an interest in heritage lands and/or resources potentially affected by the proposed project.	AFC Vol. 2, Appendix 6.7-1, Appendix A	Yes	
Appendix B (g) (2) (E)	In the discussion on mitigation and monitoring prepared pursuant to subsection (g)(1), a discussion of any educational programs proposed to enhance awareness of potential impacts to archeological resources by employees and contractors, measures proposed for mitigation of impacts to known cultural resources, and a set of contingency measures for mitigation of potential impacts to previously unknown cultural resources.	AFC Vol. 1, Page 6.7-10 & 11	No	Please provide a full discussion of the education program that will be used to enhance awareness of employees and contractors.
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	AFC Vol. 1, Table 6.7-1, Page 6.7-13 to 15	Yes	

Adequacy Issue:	Adequate	Inadequate	X	DATA ADEQUACY WORKSHEET	Revision No.	0	Date	10/22/01	
			Pro	iect			- Paul	Shattuck/Gary	
Technical Area:	Cultural Res	ources	:	Avenal Energy Project	Technical St	aff:	Reino	oehl	
			Do	eket					
Project Manager:	Jim McKinnev		:	01-AFC-20	Technical Se	enior:	Dale	Edwards	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	AFC Vol. 1, Table 6.7-2, Page 6.7-16	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	AFC Vol. 2, Appendix 6.7-1 Page. 3 to 6	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	AFC Vol. 1, Table 6.7-2, Page 6.7-16	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	AFC Vol. 1, Page 6.7-12	Yes	

Adequacy Issue:	Adequate X Inadequate	DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	October 19, 2001
Technical Area:	Efficiency	Project:	Avenal Energy Project	Technical St	aff:	Brian l	Payne
Project Manager:	Jim McKinney	Docket:	01-AFC-20	Technical Se	enior:	Steve	Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§ 1.5 (Page 1-4 to 15), Figure 1.5-3 (Page 1-7), Table 1.5-1 (Page 1-8), Figure 1.5-4 (Page 1-11), Figure 1.5-5 (Page 1-13), § 1.8 (Page 1-16 to 27), § 2.1 (Page 2-4 to 9), § 2.2.2 (Page 2-17 to 18), § 2.2.3 (Page 2-18 to 19), § 6.0 (Page 6.1-1 to 6.18-9)	Yes	
Appendix B (i) (4) (A)	Heat and mass balance diagrams for design conditions for each mode of operation.	Table 2.3-5 (Page 2-70), Appendix 2-6	Yes	
Appendix B (i) (4) (B)	Annual fuel consumption in BTUs for each mode of operation.	§ 2.3.14.2 (Page 2-61 to 62), § 2.3.16 (Page 2-70), Appendix 2-6	Yes	
Appendix B (i) (4) (C)	Annual net electrical energy produced in MWh for each mode of operation.	§ 2.3.16 (Page 2-70), Appendix 2-6	Yes	
Appendix B (i) (4) (D)	Number of hours the plant will be operated in each mode of operation in each year.	§ 1.6 (Page 1-15)	Yes	
Appendix B (i) (4) (E)	If the project will be a cogeneration facility, calculations showing compliance with applicable efficiency and operating standards.		N/A	
Appendix B (i) (4) (F)	A discussion of alternative generating technologies available for the project, including the projected efficiency of each, and an explanation why the chosen equipment was selected over these alternatives.	§ 5.6 (Page 5-19 to 31)	Yes	

Adequacy Issue:	Adequate X Inadequate	DATA ADEQUACY WORKSHEET	Revision No. 0	Date October 19, 2001
Technical Area:	Efficiency	Project: _ Avenal Energy Project	Technical Staff:	Brian Payne
Project Manager:	Jim McKinney	Docket: 01-AFC-20	Technical Senior:	Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 2.5-1 (Page 2-105 to 108), Table 6.3-3 (Page 6.3-22), Table 6.5-6 (Page 6.5-30), Table 6.9-4 (Page 6.9-19), Table 6.14-4 (Page 6.14-18), Appendix 2-1, § 2.0 (Page 2-1-1 to 4), Appendix 2-2, § 2.0 (Page 2-2-1 to 6), Appendix 2-3, § 2.0 (Page 2-3-2 to 4), Appendix 2-4, § 2.0 (Page 2-4-1 to 2), Appendix 2-5, § 2.0 (Page 2-5-1	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 2.5-1 (Page 2-105 to 108), Table 6.3-4 (Page 6.3-23), Table 6.5-7 (Page 6.5-31), Table 6.14-5 (Page 6.19)	Yes	

Adequacy Issue:	Adequate X Inadequ	ate DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	October 19, 2001	
Technical Area:	Efficiency	Project:	Avenal Energy Project	Technical Sta	aff:	Brian	Payne	
Project Manager:	Jim McKinney	Docket:	01-AFC-20	Technical Se	nior:	Steve	Baker	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	§ 2.3.17.2 (Page 2-71), § 2.5.1 (Page 2-104), § 2.5.2 (Page 2-112), § 2.5.3 (Page 2-112), § 2.5.4 (Page 2-113), § 6.3.5 (Page 6.3-21 to 23), § 6.5.5 (Page 6.5-29), § 6.9.3.2 (Page 6.9-18), § 6.14.5 (Page 6.14-16), Appendix 2-1, § 2.0 (Page 2-1-1 to 4), Appendix 2-2, § 2.0 (Page 2-2-1 to 6), Appendix 2-3, § 2.0 (Page 2-3-2 to 4), Appendix 2-4, § 2.0 (Page 2-4-1 to 2), Appendix 2-5, § 2.0 (Page 2-5-1)	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 2.5-5 (Page 2-112), Table 6.3-4 (Page 6.3-23), Table 6.5-7 (Page 6.5-31), Table 6.14-5 (Page 6.14- 19)	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Figure 2.5-1 (Page 2-114)	Yes	

Adequacy Issue:	Adequate X Inadequa	ate <b>DATA</b>	ADEQUACY WORKSHEET	Revision No. 0	Date (	October 19, 2001	
Technical Area:	Facility Design	Project:	Avenal Energy	Technical Staff:	Brian F Pruchr	Payne and Matt nik	
Project Manager	.lim McKinney	Docket:	01-AFC-20	Technical Senior	·· Steve	Raker	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones.	§ 6.5.1.2 (Page 6.5-3 to 5), See Water Resources	Yes	
Appendix B (g) (14) (D) (i)	Precipitation and storm runoff patterns; and	§ 2.3.17.2 (Page 2-71), § 2.3.17.3 (Page 2-71 to 72), Figure 2.3-9 (Page 2-73), Figure 2.3-10 (Page 2-75), See Also Water Resources	Yes	
Appendix B (g) (14) (D) (ii)	Drainage facilities and design criteria.	§ 2.3.7.11 (Page 2-45), § 2.3.17.2 (Page 2-71), § 2.3.17.3 (Page 2-71 to 72), Figure 2.3-9 (Page 2-73), Appendix 2-1, § 3.3.6 (Page 2-1-6 to 8), See Also Water Resources	Yes	
Appendix B (g) (14) (E) (ii)	The effects of construction activities and plant operation on water quality; and	§ 2.1.1 (Page 2-4), § 6.5.2 (Page 6.5-21 to 29), See Water Resources	Yes	
Appendix B (g) (14) (iii)	The effects of the project on the 100-year flood plain or other water inundati4n zones.	See Water Resources		

Adequacy Issue:	Adequate X	Inadequate	DATA ADEQUACY WORKSHEET	Revision No.	0	Date	October 19, 2001
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Technical Area: Facility Design Project: Avenal Energy Technical Staff: Brian Payne and Matt Pruchnik

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 2.5-1 (Page 2-105 to 108), Table 6.3-3 (Page 6.3-22), Table 6.5-6 (Page 6.5-30), Table 6.14-4 (Page 6.14-18), Appendix 2-1, § 2.0 (Page 2-1-1 to 4), Appendix 2-2, § 2.0 (Page 2-2-1 to 6), Appendix 2-3, § 2.0 (Page 2-3-2 to 4), Appendix 2-4, § 2.0 (Page 2-4-1 to 2), Appendix 2-5, § 2.0 (Page 2-5-1	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 2.5-1 (Page 2-105 to 108), Table 2.5-5 (Page 2-112), Table 6.3-4 (Page 6.3-23), Table 6.5-7 (Page 6.5-31), Table 6.14-5 (Page 6.19)	Yes	

Adequacy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WORKSHEET	Revision No.	0	Date	October 19, 2001
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Technical Area: Facility Design Project: Avenal Energy Technical Staff: Brian Payne and Matt Pruchnik

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	§ 2.3.17.2 (Page 2-71), § 2.5.1 (Page 2-104), § 2.5.2 (Page 2-112), § 2.5.3 (Page 2-112), § 2.5.4 (Page 2-113), § 6.3.5 (Page 6.3-21 to 23), § 6.5.5 (Page 6.5-29), § 6.14.5 (Page 6.14-16), Appendix 2-1, § 2.0 (Page 2-1-1 to 4), Appendix 2-2, § 2.0 (Page 2-2-1 to 6), Appendix 2-3, § 2.0 (Page 2-3-2 to 4), Appendix 2-4, § 2.0 (Page 2-4-1 to 2), Appendix 2-5, § 2.0 (Page 2-5-1)	Yes	
Appendix B (h) (3)	The name, title, telephones number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 2.5-5 (Page 2-112), Table 6.3-4 (Page 6.3-23), Table 6.5-7 (Page 6.5-31), Table 6.14-5 (Page 6.14-19)	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Figure 2.5-1 (Page 2-114)	Yes	

Adequacy Issue:	Adequate	X	Inadequate	DATA ADEQUACY WORKSHEET	Revision No.	0	Date	October 19, 2001
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Technical Area: Facility Design Project: Avenal Energy Technical Staff: Brian Payne and Matt Pruchnik

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	Information Required To Make Afc Conform With Regulations
Appendix B (i) (1) (A)	A description of the site conditions and investigations or studies conducted to determine the site conditions used as the basis for developing design criteria. The descriptions shall include, but not be limited to, seismic and other geologic hazards, adverse conditions that could affect the project's foundation, adverse meteorological and climatic conditions, and flooding hazards, if applicable.	§ 1.5 (Page 1-4 to 15), Figure 1.5-3 (Page 1-7), Table 1.5-1 (Page 1-8), Figure 1.5-4 (Page 1-11), Figure 1.5-5 (Page 1-13), § 2.1.2 (Page 2-4 to 6), § 2.1.3 (Page 2-6 to 9), § 1.8.2 (Page 1-18), § 6.3 (Page 6.3-1 to 23), § 6.5.1.2 (Page 6.5-3 to 5)	Yes	
Appendix B (i) (1) (B)	A discussion of any measures proposed to improve adverse site conditions.	§ 2.3.11.2 (Page 2-49), § 6.3.2.4 (Page 6.3-21)	Yes	
Appendix B (i) (1) (C)	A description of the proposed foundation types, design criteria (including derivation), analytical techniques, assumptions, loading conditions, and loading combinations to be used in the design of facility structures and major mechanical and electrical equipment.	§ 2.3.17.1 (Page 2-71), Appendix 2.1, Appendix 2.2	Yes	
Appendix B (i) (1) (D)	For each of the following facilities and/or systems, provide a description including drawings, dimensions, surface-area requirements, typical operating data, and performance and design criteria for protection from impacts due to adverse site conditions:			
Appendix B (i) (1) (D) (i)	The power generation system;	§ 2.3.5 (Page 2-28 to 35), § 2.3.6 (Page 2-35 to 39), Figure 2.3-3 (Page 2-29), Figure 2.3-4 (Page 2-31), Figure 2.3-5 (Page 2-33), Appendix 2-4, Appendix 2-6	Yes	

Technical Area: Facility Design Project: Avenal Energy Technical Staff: Brian Payne and Matt Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Steve Baker

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (D) (ii)	The heat dissipation system;	§ 2.3.6.4 (Page 2-38 to 39), § 2.3.7.4 (Page 2-43), § 2.3.7.5 (Page 2-43), § 2.3.7.8 (Page 2-44), Figure 2.3-3 (Page 2-29), Figure 2.3-4 (Page 2-31), Figure 2.3-5 (Page 2-33), Appendix 2-6	Yes	
Appendix B (i) (1) (D) (iii)	The cooling water supply system, and, where applicable, pre-plant treatment procedures;	Figure 2.1-3A (Page 2-9), Figure 2.1-5 (Page 2-15), Figure 2.3-3 (Page 2-29), Figure 2.3-4 (Page 2-31), Figure 2.3-5 (Page 2-33), § 2.3.7 (Page 2-39 to 45), § 2.3.15.5 (Page 2-67), § 6.5 (Page 6.5-1 to 20), Appendix 2-6, Appendix 2-8	Yes	
Appendix B (i) (1) (D) (iv)	The atmospheric emission control system;	§ 2.3.9 (Page 2-46 to 48), Figure 2.3-3 (Page 2-29), Figure 2.3-4 (Page 2-31), Figure 2.3-5 (Page 2-33), § 6.2.5.1.1 (Page 6.2-27 to 34), Appendix 6.2-1, Appendix 6.2-2	Yes	
Appendix B (i) (1) (D) (v)	The waste disposal system and on-site disposal sites;	§ 1.5.6 (Page 1-15), § 1.8.4 (Page 1-19 to 20), Figure 2.3-3 (Page 2-29), § 2.3.7 (Page 2-39 to 45), § 2.3.8 (Page 2-45 to 46), § 6.14.2 (Page 6.14-5 to 16)	Yes	

Adequacy Issue:	Adequate Inadequate	DATA ADEQUACY WORKSHEET	Revision No. 0	Date October 19, 2001
Technical Area:	Facility Design	Project: Avenal Energy	Technical Staff:	Brian Payne and Matt Pruchnik
Project Manager:	Jim McKinney	Docket: 01-AFC-20	Technical Senior:	Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (D) (vii)	The geothermal resource conveyance and reinjection lines (if applicable);		N/A	
Appendix B (i) (1) (D) (viii)	Switchyards/transformer systems; and	§ 1.5.2 (Page 1-9 to 10), § 1.5.3 (Page 1-20), § 2.3.13 (Page 2-53 to 58), Figure 2.1-5 (Page 2-15) Figure 2.3-3 (Page 2-29), Figure 2.3-6 (Page 2-55), Figure 2.4-3 (Page 2-93), Appendix 2-4	Yes	
Appendix B (i) (1) (D) (ix)	Other significant facilities, structures, or system components proposed by the applicant.	§ 2.3.11.5 (Page 2-50 to 51) Fire Protection	Yes	

Technical Area: Geological Resources Project: Avenal Energy Project Technical Staff: Dal Hunter

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Lynn Alexander

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Page 6.3-1 Section 6.3	Yes	
Appendix B	A summary of the geology, seismicity, and	Pages 6.3-1 tp 6.3-19	Yes	
(g) (17) (A)	geologic resources of the project site and related facilities;	Sections 6.3.1 to 6.3.1.6		
Appendix B (g) (17) (B)	A map at a scale of 1:24,000 and description of all recognized stratigraphic units, geologic structures, and geomorphic features within 2 miles of the project site. Include an analysis of the likelihood of ground rupture, seismic shaking, mass wasting and slope stability, liquefaction, subsidence, and expansion or collapse of soil structures.	Page 6.3-11, Figure 6.3-3C; Pages 6.3-1 to 6.3-19, Section 6.3.1	Yes	
Appendix B (g) (17) (C)	A map and description of geologic resources of recreational, commercial, or scientific value which may be affected by the project. Include a discussion of the techniques used to identify and evaluate these resources.	Page 6.3-19, Section 6.3.1.6	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Page 6.3-22 Table 6.3-3	Yes	

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Technical Area:Geological ResourcesProject:Avenal Energy ProjectTechnical Staff:Dal HunterProject Manager:Jim McKinneyDocket:01-AFC-20Technical Senior:Lynn Alexander

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Page 6.3-22 Table 6.3-3	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Page 6.3-21 Section 6.3.5	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Page 6.3-23 Table 6.3-4	Yes	

Technical Area: Hazardous Materials Handling Project: Avenal Energy Project Technical Staff: Rick Tyler

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Rick Tyler

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 6.15	Yes	
Appendix B	A list of all materials used or stored on-site	Table 6.15-1	Yes	
(g) (10) (A)	which are hazardous or acutely hazardous, as defined in Title 22, California Code of Regulations, § 66261.20 et seq., and a discussion of the toxicity of each material.			
Appendix B	A map at a scale of 1:24,000 depicting the	Figure 6.16-1	Yes	
(g) (10) (B)	location of schools, hospitals, day-care facilities, emergency response facilities and long-term health care facilities, within the area potentially affected by any release of hazardous materials.			
Appendix B	A discussion of the storage and handling	Section 6.15	Yes	
(g) (10) (C)	system for each hazardous material used or stored at the site.			
Appendix B	The protocol that will be used in modeling	Section 6.15.2.2.3	Yes	
(g) (10) (D)	potential consequences of accidental releases that could result in off site impacts. Identify the model(s) to be used, a description of all input assumptions, including meteorological conditions. The results of the modeling analysis can be submitted after the AFC is complete.			
Appendix B	A discussion of whether a risk management	Section 6.15.1 and 2	Yes	
(g) (10) (E)	plan (Health and Safety Code § 25531 et seq.) will be required, and if so, the requirements that will likely be incorporated into the plan.			

Technical Area: Hazardous Materials Handling Project: Avenal Energy Project Technical Staff: Rick Tyler

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Rick Tyler

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (10) (F)	A discussion of measures proposed to reduce the risk of any release of hazardous materials.	Section 6.15 and 6.15.3	Yes	
Appendix B (g) (10) (G)	A discussion of the fire and explosion risks associated with the project.	Section 6.15.2.2	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 68.12-10	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.15-5	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Section 6.15.5	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 6.15-6	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.		N/A	No permits are required

Adequacy Issue: Adequate Inadequate X DATA ADEQUACY WORKSHEET Revision No. 0 Date Nov. 2, 2001

Technical Area: Land Use Project: Avenal Energy Project Technical Staff: Tamblyn Borton

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Eileen Allen

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B	provide a discussion of the existing site	Section 6.9	Yes	
(g) (1)	conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Entire contents		
Appendix B	A discussion of existing land uses and current	Section 6.9.1.2	Yes	
(g) (3) (A)	zoning at the site, land uses and land use patterns within one mile of the proposed site and within one-quarter mile of any project-related linear facilities. Include:	Pages 6.9-7 through 6.9-8		
Appendix B	An identification of residential, commercial,	Section 6.9.1.1,	Yes	
(g) (3) (A) (i)	industrial, recreational, scenic, agricultural, natural resource protection, natural resource	Section 6.9.1.2		
	extraction, educational, religious, cultural, and historic areas, and any other area of unique land uses;	Pages 6.9-1 through 6.9-8		
Appendix B	A discussion of any trends in recent zoning	Section 6.9.2	Yes	
(g) (3) (A) (ii)	changes and potential future land use development;	Page 6.9-8		
Appendix B	Identification of all discretionary reviews by	Section 6.9.2	Yes	
(g) (3) (A) (iii)	public agencies initiated or completed within 18 months prior to filing the application for those changes or developments identified in subsection (g)(3)(A)(ii); and	Page 6.9-8		
Appendix B	Legible maps of the areas identified in	Figure 6.9-3	No	Map identifies Kings County and Fresno County
(g) (3) (A) iv)	subsection (g)(3)(A) potentially affected by the project, on which existing land uses,	Page 6.9-5		as agricultural, but does not delineate these designations on the map.
	jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.			Please provide Kings and Fresno County general plan and zoning information on the map.

Adequacy Issue:	Adequate	Inadequate	X	DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	Nov. 2, 2001
Technical Area:	Land Use			Project:	Avenal Energy Project	Technical Sta	aff:	Tamb	lyn Borton
Project Manager:	Jim McKinney			Docket:	01-AFC-20	Technical Se	nior:	Eileer	n Allen

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (B)	A discussion of the compatibility of the proposed facilities with present and expected land uses, and conformity with any long-range land use plans adopted by any federal, state, regional, or local planning agency. The discussion shall identify the need, if any, for variances or any measures that would be necessary to make the proposal conform with permitted land uses	Section 6.9 Page 6.9-1 Section 6.9.2 Pages 6.9-8 through 6.9-17	Yes	
Appendix B (g) (15) (B)	A map at a scale of 1:24,000 and written description of agricultural land uses found within all areas affected by the proposed project. The description shall include:	Fig 6.9-2, Page 6.9-3 Section 6.9.1, Section 6.9.2 Pages 6.9-1 through 6.9-8	Yes	
Appendix B (g) (15) (B) (i)	Crop types, irrigation systems, and any special cultivation practices; and	Section 6.9.1.1, Section 6.9.1.2 Pages 6.9-1 through 6.9-8	Yes	
Appendix B (g) (15) (B) (ii)	Whether farmland affected by the project is prime, of statewide importance, or unique as defined by the Natural Resource Conservation Service through the California Department of Conservation.	Section 6.4., Pages 6.4-2,- 6.4-5	Yes	
Appendix B (g) (15) (C)	An assessment of the effects of the proposed project on soil resources and agricultural land uses. This decision shall include:	Section 6.4, Pages 6.4-1 through 6.4-13	Yes	

Technical Area:Land UseProject:Avenal Energy ProjectTechnical Staff:Tamblyn BortonProject Manager:Jim McKinneyDocket:01-AFC-20Technical Senior:Eileen Allen

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (15) (C) (ii)	Direct and indirect effects on agricultural land uses; and	Section 6.9.3.3, pp 6.9-18 through 6.9-21, Section 6.9.3.4, pp 6.9-21 through 6.9-23. Section 6.9.3.5, p 6.9-23 Section 6.4, pps.6.4-1-5 through 6.4-15	No	Current maps maintained by the California Department of Conservation indicate that the project site is classified as Prime Farmland.  The project may result in the cumulative loss of Prime Farmland in the state, and may have growth inducing indirect effects. The project may have potential impacts that "are individually limited, but cumulatively considerable", which need to be addressed as a potentially significant impact.  Please discuss the project's cumulative impact, with respect to Prime Farmland conversion.  These potential impacts and corresponding mitigation options may have been addressed by the City of Avenal in 1992, when considering the rezoning to industrial. However, the Prime Farmland impact, and the City of Avenal's CEQA response to the impact during the General Plan/rezoning process are not identified in the text discussion of cumulative impacts.  Please summarize the City's response to the potential impacts on Prime Farmland resulting from the 1992 rezoning action.
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 6.9-2, Pages 6.9-11 through 15	Yes	

Adequacy Issue:	Adequate	Inadequate	X	DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	Nov. 2, 2001	
Technical Area:	Land Use			Project:	Avenal Energy Project	Technical St	aff:	Tamb	olyn Borton	
Project Manager:	Jim McKinney			Docket:	01-AFC-20	Technical Se	enior:	Eilee	n Allen	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.9-2, Pages 6.9-11 through 15	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Section 6.9.2 Pages 6.9-8 through 6.9-17	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 6.9-3, Page 6.9-17	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.9.2.6 Page 6.9-17	Yes	

Adequacy Issue:	Adequate Inadequate	<b>X</b>	DA	TA ADEQUACY WORKSHEET	Revision No.	0	Date	October 16, 2001
Technical Area:	Noise		_ _ Project:	Avenal Energy Project	Technical Sta	ıff:	Bill TI	hiessen
Project Manager:	Jim McKinney		Docket:	01-AFC-20	Technical Ser	nior:	Bunti	n/Alexander

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	AFC Page 6.12-1	Yes	
Appendix B (g) (4) (A)	A land use map which identifies residences, hospitals, libraries, schools, places of worship, or other facilities where quiet is an important attribute of the environment within the area impacted by the proposed project. The area impacted by the proposed project is that area where there is a potential increase of 5 dB(A) or more, during either construction or operation, over existing background levels.	AFC Page 6-12-9	Yes	

Adequacy Issue:	Adequate	Inadequate	X	DATA ADEQUACY WORKSHEET	Revision No.	0	Date	October 16, 2001
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Technical Area:NoiseProject:Avenal Energy ProjectTechnical Staff:Bill ThiessenProject Manager:Jim McKinneyDocket:01-AFC-20Technical Senior:Buntin/Alexander

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (4) (B)	A description of the ambient noise levels at those sites identified under subsection (g)(4)(A) which the applicant believes provide a representative characterization of the ambient noise levels in the project vicinity, and a discussion of the general atmospheric conditions, including temperature, humidity, and the presence of wind and rain at the time of the measurements. The existing noise levels shall be determined by taking noise measurements for a minimum of 25 consecutive hours at a minimum of one site. Other sites may be monitored for duration at the applicant's discretion during the same 25-hour period. The results of the noise level measurements shall be reported in Leq (equivalent sound or noise level), Ldn (day-night sound or noise level) or CNEL (Community Noise Equivalent Level) in units of dB(A). The L10, L50, and L90 values (noise levels exceeded 10 percent, 50 percent, and 90 percent of the time, respectively) shall also be reported.	AFC Pages 6.12-8 through 6.12-12	No	A minimum 25-hour background noise level measurement should be conducted at the critical residence northeast of the project site. The data provided should include the hourly $L_{eq}$ , $L_{10}$ , $L_{50}$ and $L_{90}$ values, and the $L_{dn}$ . The short-term measurements taken at this site are described as "consistent with the $L_{90}$ statistical level." However, it appears that exact $L_{90}$ measurements were not conducted. Since background noise levels are very low at this remotely located residence, there is a possibility that project noise levels could exceed background $L_{90}$ levels at this location by 5 dBA during the nighttime hours. Continuous hourly measurements that report exact $L_{90}$ values are needed to clarify the relationship of nighttime background noise levels to project noise levels.
Appendix B	A description of the major noise sources of the	AFC Pages 6.12-29 through 6.12-27	Yes	
(g) (4) (C)	project, including the range of noise levels and the tonal and frequency characteristics of the noise emitted.	& Appendix 6-12-1		
Appendix B (g) (4) (D)	An estimate of the project noise levels, during both construction and operation, at residences, hospitals, libraries, schools, places of worship or other facilities where quiet is an important attribute of the environment, within the area impacted by the proposed project.	AFC Pages 6.12-31 through 6.12-38	Yes	

Adequacy Issue:	Adequate	Inadequate	X	DATA ADEQUACY WORKSHEET	Revision No.	0	Date	October 16, 2001
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Technical Area:NoiseProject:Avenal Energy ProjectTechnical Staff:Bill ThiessenProject Manager:Jim McKinneyDocket:01-AFC-20Technical Senior:Buntin/Alexander

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (4) (E)	An estimate of the project noise levels within the project site boundary during both construction and operation and the impact to the workers at the site due to the estimated noise levels.	AFC Pages 6.12-39 through 6.12-40	Yes	
Appendix B (g) (4) (F)	The audible noise from existing switchyards and overhead transmission lines that would be affected by the project and estimates of the future audible noise levels that would result from existing and proposed switchyards and transmission lines. Noise levels shall be calculated at the property boundary for switchyards and at the edge of the rights-of-way for transmission lines.	AFC Page 6.12-40	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	AFC Page 6-12-42	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	AFC Page 6.12-43	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	AFC Page 6.12-41	Yes	

Adequacy Issue:	Adequate Inadequa	te <b>X</b>	DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date October 16, 2	2001
Technical Area:	Noise		Project:	Avenal Energy Project	Technical St	aff:	Bill Thiessen	
Project Manager:	Jim McKinney		Docket:	01-AFC-20	Technical Se	enior:	Buntin/Alexander	

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	AFC Page 6.12-43	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	AFC Page 6.12-43	Yes	

Technical Area: Paleontological Resources Project: Avenal Energy Center Technical Staff: Dal Hunter

Project Manager: \_\_Jim McKinney \_\_\_\_\_ Docket: \_\_01-AFC-20 \_\_\_\_\_ Technical Senior: \_\_Lynn Alexander

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Page 6.8-1 Section 6.8 – 6.8-1	Yes	
Appendix B (g) (16) (A)	Identification of the physiographic province and a brief summary of the geologic setting, formations, and stratigraphy of the project area. The area may vary depending on the depositional history of the area.	Page 6.8-1 to 6.8-2 Section 6.8.1 – 6.8.1.2	Yes	
Appendix B (g) (16) (B)	A discussion of the sensitivity of the project area described in subsection (g)(16)(A) and the presence and significance of any known paleontologic localities or other paleontologic resources within or adjacent to the project.	Page 6.8.2 Section 6.8.1.3	Yes	
Appendix B (g) (16) (C)	A summary of all literature searches and field surveys used to provide information about paleontologic resources in the project area described in subsection (g)(16)(A). Identify the dates of the surveys, methods used in completing the surveys, and the names and qualifications of the individuals conducting the surveys.	Page 6.8-3 Sections 6.8.1.4.1 to 6.8.1.5.2	Yes	

Technical Area: Paleontological Resources Project: Avenal Energy Center Technical Staff: Dal Hunter

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Lynn Alexander

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (16) (D)	Information on the specific location of known paleontologic resources, survey reports, locality records, and maps at a scale of 1:24,000, shall be included in a separate appendix to the Application and submitted to the Commission under a request for confidentiality, pursuant to Title 20, California Code of Regulations, § 2501 et seq.	Appendix 6.8	N/A	No known paleontologic resources in the site vicinity.
Appendix B (g) (16) (E)	A discussion of any educational programs proposed to enhance awareness of potential impacts to paleontological resources by employees, measures proposed for mitigation of impacts to known paleontologic resources, and a set of contingency measures for mitigation of potential impacts to currently unknown paleontologic resources.	Pages 6.8-6 to 6.8-7 Section 6.8.2.5	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Page 6.8-8 Table 6.8-1	Yes	

Technical Area: Paleontological Resources Project: Avenal Energy Center Technical Staff: Dal Hunter

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.		N/A	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).		N/A	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.		N/A	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.		N/A	

Technical Area: Project Overview Project: Avenal Energy Project Technical Staff: Jim McKinney/Mary Dyas

Project Manager \_\_Jim McKinney \_\_\_\_ Docket: \_\_01-AFC-20 \_\_\_\_ Technical Senior: \_\_Paul Richins

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Cal. Code Regs., tit. 20, § 1704, (a) (3) (A)	Descriptions of all significant assumptions, methodologies, and computational methods used in arriving at conclusions in the document.	AFC. Throughout document.	Yes	
Cal. Code Regs., tit. 20, § 1704, (a) (3) (B)	Descriptions, including methodologies and findings, of all major studies or research efforts undertaken and relied upon to provide information for the document; and a description of ongoing research of significance to the project (including expected completion dates; and	AFC. Throughout document, except as may be noted in specific technical sections.	Yes	
Cal. Code Regs., tit. 20, § 1704, (a) (3) (C)	A list of all literature relied upon or referenced in the documents, along with brief discussions of the relevance of each such reference	AFC. End of each section	Yes	
Cal. Code Regs., tit. 20, § 1704, (a) (4)	Each principal subject area covered in a notice or application shall be set forth in a separate chapter or section, each of which shall identify the person or persons responsible for its preparation.	AFC. Each section. Section 7 lists contributors.	Yes	
Appendix B (a) (1) (A)	A general description of the proposed site and related facilities, including the location of the site or transmission routes, the type, size and capacity of the generating or transmission facilities, fuel characteristics, fuel supply, water supply, pollution control systems, and other general characteristics.	AFC Sect. 1 – Exec Summ. Sect. 2, Pages 2-1 to 2-114	Yes	
Appendix B (a) (1) (B)	Identification of the location of the proposed site and related facilities by section, township, range, county and assessors parcel numbers.	AFC Sect. 2, Pages 2-6 ff. Figs. 2.1-2 to 2.1-3	Yes	
Appendix B (a) (1) (C)	A description of and maps depicting the region, the vicinity, and the site and its immediate surroundings.	AFC Sect. 2 Figs. 2.01-2.1-3	Yes	

Technical Area: Project Overview Project: Avenal Energy Project Technical Staff: Jim McKinney/Mary Dyas
Project Manager Jim McKinney Docket: 01-AFC-20 Technical Senior: Paul Richins

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (a) (1) (D)	A full-page color photographic reproduction depicting the visual appearance of the site prior to construction, and a full-page color simulation or artist's rendering of the site and all project components at the site, after construction.	AFC Section 1 Figs. 1.5-4 and 1.5-5	Yes	
Appendix B (a) (1) (E)	In an appendix to the application, a list of current assessor's parcel numbers and owners' names and addresses for all parcels within 500 feet of the proposed transmission line and other linear facilities, and within 1000 feet of the proposed powerplant and related facilities.	AFC Appendix 1-1	Yes	
Appendix B (a) (2)	Project Schedule: Proposed dates of initiation and completion of construction, initial start-up, and full-scale operation of the proposed facilities.	AFC Sect. 1.3, Fig. 1.3-1	Yes	
Appendix B (a) (3) (A)	A list of all owners and operators of the site(s), the power plant facilities, and, if applicable, thermal host, the geothermal leasehold, the geothermal resource conveyance lines, and the geothermal re-injection system, and a description of their legal interest in these facilities.	AFC Sect. 1.4,	Yes	
Appendix B (a) (3) (B)	A list of all owners and operators of the proposed electric transmission facilities.	AFC Sect. 1.4, Pg. 1-4	Yes	
Appendix B (a) (3) (C)	A description of the legal relationship between the applicant and each of the persons or entities specified in subsections (a)(3)(A) and (B).	AFC Sect. 1.4	Yes	
Appendix B (b) (1) (A)	Maps at a scale of 1:24,000 (1" = 2000'), along with an identification of the dedicated leaseholds by section, township, range, county, and county assessor's parcel number, showing the proposed final locations and layout of the power plant and all related facilities;	AFC Sect. 2.1.3, Fig. 2.1-3B	Yes	

Technical Area: Project Overview Project: Avenal Energy Project Technical Staff: Jim McKinney/Mary Dyas
Project Manager Jim McKinney Docket: 01-AFC-20 Technical Senior: Paul Richins

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B	Scale plan and elevation drawings depicting the	AFC Sect. 2.3.3	Yes	
(b) (1) (B)	relative size and location of the power plant and all related facilities;	Figs. 2.1-4 to 2.3-5		
Appendix B	A detailed description of the design,	AFC Sect. 2.3	Yes	
(b) (1) (C)	construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Page 2-20 to 2-88		
Appendix B	Maps at a scale of 1:24,000 of each proposed	AFC Sect. 2.4	Yes	
(b) (2) (A)	transmission line route, showing the settled areas, parks, recreational areas, scenic areas, and existing transmission lines within one mile of the proposed route(s).	Figs. 2.1-1 and 2.1-5		
Appendix B	A full-page color photographic reproduction	AFC Section 2.4.3	Yes	
(b) (2) (B)	depicting a representative above ground section of the transmission line route prior to construction and a full-page color photographic simulation of that section of the transmission line route after construction.	Fig. 2.4-8		
Appendix B (c)	In a section entitled, "Demand Conformance" provide a discussion explaining how the proposed project conforms with the requirements of Public Resources Code § 25524 or Public Resources Code § 25540.6(a)(5). If the provisions of Public Resources Code § 25523.5 are applicable, explain how the project conforms with the requirements of this section. Additional data adequacy requirements may be contained in the Electricity Report applicable pursuant to Title 20, California Code of Regulations, § 1720.5.		N/A	

Revision No. 0 Adequacy Issue: Adequate Inadequate Date Nov. 4, 2001 **DATA ADEQUACY WORKSHEET** Technical Area: **Project Overview** Project: Technical Staff: Jim McKinney/Mary Dyas Avenal Energy Project Docket: 01-AFC-20 Project Manager Jim McKinney **Technical Senior:** Paul Richins

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (d) (1)	A copy of any study or analysis required by the terms of the Commission's Final Decision on the NOI, and a brief summary of the results of the study or analysis.		N/A	
Appendix B (d) (2)	Updates of any significant information which has changed since the Commission's Final Decision on the NOI.		N/A	
Appendix B (e) (1)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	AFC Sect. 4 Pages 4-1 to 4-4	Yes	

Adequacy Issue:	Adequate	Inadequate	X	DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	October 22, 2001	
Technical Area:	Public Health	-		Project:	Avenal Energy Project	Technical St	aff:	Alvin	Greenberg	

Docket: 01-AFC-20

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Sec. 6.16.2 Sec. 6.16.3.1 Sec. 6.16.3.2 Sec. 6.2.5 Sec. 6.16.4 Sec. 6.16.5 Sec. 6.16.6 Appendix 6.2-4	Yes	
Appendix B (g) (9) (A)	A list of all toxic substances emitted by the project under normal operating conditions, which may cause an adverse public health impact as a result of acute, chronic, or subchronic exposure and to which members of the public may be exposed. This list should include, at a minimum, any pollutants emitted by the project that are listed pursuant to Health and Safety Code § 25249.8.	Table 6.16-3	Yes	
Appendix B (g) (9) (B)	A protocol describing the analysis which the applicant will conduct to determine the extent of potential public exposure to substances identified in subsection (g)(9)(A) resulting from normal facility operation. The analysis itself can be submitted after the AFC is complete.	Sec. 6.16.1	Yes	
Appendix B (g) (9) (C)	A map at a scale of 1:24,000, showing all terrain areas exceeding the elevation of the stack within a 10 mile radius of the facility.	Figure 2.1-2	No	Please provide a map at a scale of 1:24000 showing all terrain areas exceeding the elevation of the stack within a 10 mile radius of the facility.
Appendix B (g) (9) (D)	A map at a scale of 1:24,000, showing the distribution of population and sensitive receptors within the area exposed to the substances identified in subsection (g)(9)(A).	Figure 6.16-1 Figure 6.16-2 Sec. 6.16-1	Yes	

Project Manager:

Jim Mckinney

Technical Senior: Mike Ringer

Adequacy Issue:	Adequate	Inadequate	X	DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	October 22, 2001
Technical Area:	Public Health			Project:	Avenal Energy Project	Technical St	aff:	Alvin	Greenberg
Project Manager:	Jim Mckinney			Docket:	01-AFC-20	Technical Se	enior:	Mike	Ringer

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 6.2-14 Sec. 6.16.7	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.2-10 Sec. 6.2.4.1 Sec. 6.2.4.2	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Sec. 6.2.4 Sec. 6.2.5 Sec. 6.2.6 Table 6.2-14	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 6.2-10	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.		N/A	

Technical Area: Reliability Project: Avenal Energy Technical Staff: Brian Payne

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§ 1.5 (Page 1-4 to 15), Figure 1.5-3 (Page 1-7), Table 1.5-1 (Page 1-8), Figure 1.5-4 (Page 1-11), Figure 1.5-5 (Page 1-13), § 1.8 (Page 1-16 to 27), § 2.1 (Page 2-4 to 9), § 2.2.2 (Page 2-17 to 18), § 2.2.3 (Page 2-18 to 19), § 6.0 (Page 6.1-1 to 6.18-9)	Yes	
Appendix B	A discussion of the sources and availability of	§ 1.5.2 (Page 1-9 to 10),	Yes	
(i) (3) (A)	the fuel or fuels to be used over the estimated service life of the facilities.	§ 1.5.4 (Page 1-10), Figure 1.5-3 (Page 1-7), § 2.3.14 (Page 2-58 to 62), Figure 2.3-8 (Page 2-60), § 2.3.15.4 (Page 2-66 to 67)		
Appendix B (i) (3) (B)	A discussion of the anticipated service life and degree of reliability expected to be achieved by the proposed facilities based on a consideration of:			
Appendix B	Expected annual and lifetime capacity factors;	§ 1.6 (Page 1-15)	Yes	
(i) (3) (B) (i)				
Appendix B (i) (3) (B) (ii)	The demonstrated or anticipated feasibility of the technologies, systems, components, and measures proposed to be employed in the facilities, including the power generation system, the heat dissipation system, the water supply system, the reinjection system, the atmospheric emission control system, resource conveyance lines, and the waste disposal system;	§ 2.3.2 (Page 2-22 to 27), § 2.3.6.4 ({age 2-38 to 39), § 2.3.9 (Page 2-46 to 48), § 2.3.15.3 (Page 2-65 to 66), § 2.3.15.5 (Page 2-67 to 68), § 5.4 (Page 5-8 to 16), § 5.6 (Page 5-19 to 31) Appendix 6.5-3	Yes	

Technical Area: Reliability Project: Avenal Energy Technical Staff: Brian Payne

Project Manager: \_\_Jim McKinney \_\_\_\_\_ Docket: \_\_01-AFC-20 \_\_\_\_\_ Technical Senior: \_\_Steve Baker

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (3) (B) (iii)	Geologic and flood hazards, meteorologic conditions and climatic extremes, and cooling water availability;	§ 1.5 (Page 1-4 to 15), Table 1.5-1 (Page 1-8), § 1.8.2 (Page 1-18), § 2.1.2 (Page 2-4 to 6), § 2.1.3 (Page 2-6 to 9), § 2.3.7 (Page 2-39 to 45), § 6.3 (Page 6.3-1 to 23), § 6.5.1.2 (Page 6.5-3 to 5), Appendix 6.5-3	Yes	
Appendix B (i) (3) (B) (iv)	Special design features adopted by the applicant or resource supplier to ensure power plant reliability; and	§ 2.3.15.2 (Page 2-64 to 65), § 2.3.15.3 (Page 2-65 to 66), § 2.3.15.6 (Page 2-67 to 68), Appendix 2.7	Yes	
Appendix B (i) (3) (B) (v)	The expected power plant maturation period.	§ 2.3.15.9 (Page 2-70)	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 2.5-1 (Page 2-105 to 108), Table 6.3-3 (Page 6.3-22), Table 6.5-6 (Page 6.5-30), Table 6.9-4 (Page 6.9-19), Table 6.14-4 (Page 6.14-18), Appendix 2-1, § 2.0 (Page 2-1-1 to 4), Appendix 2-2, § 2.0 (Page 2-2-1 to 6), Appendix 2-3, § 2.0 (Page 2-3-2 to 4), Appendix 2-4, § 2.0 (Page 2-4-1 to 2), Appendix 2-5, § 2.0 (Page 2-5-1	Yes	

Technical Area: Reliability Project: Avenal Energy Technical Staff: Brian Payne

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 2.5-1 (Page 2-105 to 108), Table 6.3-4 (Page 6.3-23), Table 6.5-7 (Page 6.5-31), Table 6.14-5 (Page 6.19)	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	§ 2.3.17.2 (Page 2-71), § 2.5.1 (Page 2-104), § 2.5.2 (Page 2-112), § 2.5.3 (Page 2-112), § 2.5.4 (Page 2-113), § 6.3.5 (Page 6.3-21 to 23), § 6.5.5 (Page 6.5-29), § 6.9.3.2 (Page 6.9-18), § 6.14.5 (Page 6.14-16), Appendix 2-1, § 2.0 (Page 2-1-1 to 4), Appendix 2-2, § 2.0 (Page 2-2-1 to 6), Appendix 2-3, § 2.0 (Page 2-3-2 to 4), Appendix 2-4, § 2.0 (Page 2-4-1 to 2), Appendix 2-5, § 2.0 (Page 2-5-1)	Yes	
Appendix B (h) (3)	The name, title, phone number and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 2.5-5 (Page 2-112), Table 6.3-4 (Page 6.3-23), Table 6.5-7 (Page 6.5-31), Table 6.14-5 (Page 6.14-19)	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Figure 2.5-1 (Page 2-114)	Yes	

Technical Area: Socioeconomics Project: Avenal Energy Project Technical Staff: James Adams

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Dale Edwards

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	AFC, Section 6.10 Pages 6.10-1 through 36	Yes	
Appendix B (g) (7) (A)	A description of the socioeconomic circumstances of the vicinity and region affected by construction and operation of the project. Include:	Section 6.10.18.01 Pages 6.10-2 through 16	Yes	
Appendix B (g) (7) (A) (i)	The economic characteristics, including the economic base, fiscal resources, and a list of the applicable local agencies with taxing powers and their most recent and projected revenues;	Section 6.10.1.2 Pages 6.10-7 through 9 Section 6.10.1.7 Pages 6.10-14 through 16	Yes	
Appendix B (g) (7) (A) (ii)	The social characteristics, including population and demographic and community trends;	Section 6.10.1.1 Pages 6.10-2 through 7 Tables 6.10-1, 2, 3, 4	Yes	
Appendix B (g) (7) (A) (iii)	Existing and projected unemployment rates;	Section 6.10.1.2 Pages 6.10-7 through 9 Tables 6.10-5 & 6	Yes	
Appendix B (g) (7) (A) (iv)	Availability of skilled workers by craft required for construction and operation of the project;	Section 6.10.2.1.2 Pages 6.10-18 through 21	Yes	
Appendix B (g) (7) (A) (v)	Availability of temporary and permanent housing; and	Section 6.10.1.3 Pages 6.10-10 & 11 Section 6.10.2.1.4 Page 6.10-20	Yes	

Technical Area: Socioeconomics Project: Avenal Energy Project Technical Staff: James Adams

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (A) (vi)	Capacities, existing and expected use levels, and planned expansion of utilities (gas, water and waste) and public services, including fire protection, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information for each school district shall include current enrollment and yearly expected enrollment by grade level groupings, excluding project-related changes, for the duration of the project construction schedule.	Section 6.10.1.4, 5, 6 Pages. 6.10-10 through 14	Yes	
Appendix B (g) (7) (B)	A discussion of the socioeconomic impacts caused by the construction and operation of the project, including:	Section 6.10.2 Pages 6.10-16 through 30	Yes	
Appendix B (g) (7) (B) (i)	The number of workers to be employed each month by craft during construction and operation;	Section 2.3-18 Pages 2-81 through 83 Figure 2.3-13 Table 2.3-6 Section 6.10.2.2.1 Page 6.10-23	Yes	
Appendix B (g) (7) (B) (ii)	An estimate of the number and percentage of workers who will commute daily, commute weekly, or relocate in order to work on the project;	Section 6.10.2.1.2 Pages 6.10-18 through 20 Section 6.10.2.1.4 Page 6.10-21	Yes	
Appendix B (g) (7) (B) (iii)	An estimate of the potential population increase caused directly and indirectly by the project;	Section 6.10.2.2.2 Page 6.10-23	Yes	

Technical Area: Socioeconomics Project: Avenal Energy Project Technical Staff: James Adams

Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Dale Edwards

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (7) (B) (iv)	The potential impact of population increase on housing during the construction and operations phases;	Section 6.10.2.2.2 Page 6.10-32	Yes	
Appendix B (g) (7) (B) (v)	The potential impacts, including additional costs, on utilities (gas, water and waste) and public services, including fire, law enforcement, emergency response, medical facilities, other assessment districts, and school districts. For projects outside metropolitan areas with a population of 500,000 or more, information on schools shall include project-related enrollment changes by grade level groupings and associated facility and staffing impacts by school district during the construction and operation phases;	Section 6.10.2 Pages 6.10-16 through 29	Yes	
Appendix B (g) (7) (B) (vi)	An estimate of applicable school impact fees;	Section 6.10.2.2.5 Pages 6.10-24 &S 25	Yes	
Appendix B (g) (7) (B) (vii)	An estimate of the total construction payroll and an estimate of the total operation payroll;	Section 6.10.2.1.3 Pages 6.10-20 Section 6.10.2.2.3 Page 6.10-24	Yes	
Appendix B (g) (7) (B) (viii)	An estimate of the expenditures for locally purchased materials for the construction and operation phases of the project; and	Section 6.10.2.1.3 Pages 6.10-20 Section 6.10.2.2.3 Page 6.10-24	Yes	
Appendix B (g) (7) (B) (ix)	An estimate of the capital cost of the project of the potential impacts on tax revenues from construction and operation of the project.	Section 6.10.2.1.3 Pages 6.10-20 Section 6.10.2.2.3 Page 6.10-24	Yes	

Technical Area: Socioeconomics Project: Avenal Energy Project Technical Staff: James Adams

Project Manager: \_\_Jim McKinney \_\_\_\_ Docket: \_\_01-AFC-20 \_\_\_\_\_ Technical Senior: \_\_Dale Edwards

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 6.10-16 Page 6.10-32	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.10-17 Page 6.10-33	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Section 6.10.5 Page 6.10-31 Table 6.10-16 Section 6.10-32	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 6.10-17 Page 6.10-33	Yes	
Appendix (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.10.5, Pg. 6.10-31 Table 6.10-17 Page 6.10-33	Yes	

Technical Area:Soil ResourcesProject:Avenal Energy ProjectTechnical Staff:Lorraine WhiteProject Manager:Jim McKinneyDocket:01-AFC-20Technical Senior:Dick Anderson

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and	Sect. 1.8.3, Page 1-18 to 1-19	Yes	
(9) (1)	cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse	Sect. 2.3.17.4 and Section 2.3.17.5, Page 2-72		
	environmental impacts of the project, the	Figure 2.3-9 to 2.3-12		
	effectiveness of the proposed measures, and any monitoring plans proposed to verify the	Page 2-72 to 2-81		
	effectiveness of the mitigation.	Sect. 5.0, Page 5-1 to 5-22		
		Sect. 6.1.4, Page 6.1-4 to 6.1-12		
		Sect 6.4 Page 6.4-1 to 6.4- 15		
		Appendix 6.5-1		
Appendix B	A map at a scale of 1:24,000 and written	Table 2.3-7, Page 2-88	Yes	
(g) (15) (A)	description of soil types and all agricultural land uses that will be affected by the proposed project. The description shall include:	Figures 6.4-1, 6.4-3, 6.4-4		
Appendix B	The depth, texture, permeability, drainage,	Table 6.4-1, Page 6.4-4	Yes	
(g) (15) (A) (i)	erosion hazard rating, and land capability class of the soil; and			
Appendix B	An identification of other physical and chemical	Sect. 6.3.1.5.4, Page 6.3-	Yes	
(g) (15) (A) (ii)	characteristics of the soil necessary to allow an evaluation of soil erodibility, permeability, re-	18		
	vegetation potential, and cycling of pollutants in the soil-vegetation system.	Sect. 6.3.1.5.7, Page 6.3- 19		
	and coming comments of the com	Page 6.4-1 to 6.4-8		
		Appendix 6.14-1, Page 1- 21 et al.		
Appendix B	An assessment of the effects of the proposed	Sect. 6.4.2, Page 6.4-9 to	Yes	
(g) (15) (C)	project on soil resources and agricultural land uses. This discussion shall include:	6.4-11		

Technical Area:Soil ResourcesProject:Avenal Energy ProjectTechnical Staff:Lorraine WhiteProject Manager:Jim McKinneyDocket:01-AFC-20Technical Senior:Dick Anderson

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (15) (C) (i)	The quantification of accelerated soil loss due to wind and water erosion;	Appendix 6.4-1	Yes	
Appendix B (g) (15) (C) (iii)	The effect of power plant emissions on surrounding soil-vegetation systems.	Page 6.4-10 to 6.4-11	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 2.5-1, p. 2-106 Table 6.4-2, Page 6.4-13	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 2.5-5, Page 2-112 Table 6.4-2, Page 6.4-13	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Sect. 6.4.5, Page 6.4-12 Table 6.4-2, Page 6.4-13	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 2.5-5, Page 2-112 Table 6.4-3, Page 6.4-14	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Page 2-114 Figure 2.5-1	Yes	

Adequacy Issue:	Adequate Inadequate	DATA ADEQUACY WORKSHEET	Revision No. 0	Date November 5, 2001
Technical Area:	T-Line Safety and Nuisance	Project: Avenal Energy Project	Technical Staff:	Obed Odoemelam
Project Manager:	Robert Worl	Docket: 01-AFC-20	Technical Senior:	Mike Ringer

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2) (A)	A discussion of the need for the additional electric transmission lines, substations, or other equipment, the basis for selecting principal points of junction with the existing electric transmission system, and the capacity and voltage levels of the proposed lines, along with the basis for selection of the capacity and voltage levels.		See TSE	
Appendix B (i) (2) (B)	A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity.		See TSE	
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators. This description shall include power load flow diagrams which demonstrate conformance or nonconformance with utility reliability and planning criteria at the time the facility is expected to be placed in operation and five years thereafter; and		See TSE	

Adequacy Issue:	Adequate Inadequate	DATA ADEQUACY WORKSHEET	Revision No. 0	Date November 5, 2001
Technical Area:	T-Line Safety and Nuisance	Project: _Avenal Energy Project	Technical Staff:	Obed Odoemelam
Project Manager:	Robert Worl	Docket: 01-AFC-20	Technical Senior:	Mike Ringer

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints.		See TSE	
Appendix B (g) (18) (A)	The locations and a description of the existing switchyards and overhead and underground transmission lines that would be affected by the proposed project.	Section 1.0, page 1-10. Section 2.0, pages 2-84, 2-85, and 2-89 through 2-92, and Section 6.18, pages 6.18-1 and 6.18-2.	Yes	
Appendix B (g) (18) (B)	An estimate of the existing electric and magnetic fields from the facilities listed in (A) above and the future electric and magnetic fields that would be created by the proposed project, calculated at the property boundary of the site and at the edge of the rights of way for any transmission line. Also provide an estimate of the radio and television interference that could result from the project.	Section 6.18, pages 6.18-7, and 6.18-8. Appendix 6.18-1	Yes	
Appendix B (g) (18) (C)	Specific measures proposed to mitigate identified impacts, including a description of measures proposed to eliminate or reduce radio and television interference, and all measures taken to reduce electric and magnetic field levels.	Section 2.0, pages 2-99 and 2-100, and Section 6.18, pages 6.18-2 through 6.18-9	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Section 6.18, page 6.18-10.	Yes	

**DATA ADEQUACY WORKSHEET** Adequacy Issue: Revision No. November 5, 2001 Adequate Inadequate Date Technical Area: **T-Line Safety and Nuisance** Project: Avenal Energy Project Technical Staff: Obed Odoemelam Project Manager: **Technical Senior:** Robert Worl Docket: 01-AFC-20 Mike Ringer

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 6.18, page 6.18-10	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Section 6.18, pages 6.18-7 and 6.18-8.	Yes	
Appendix B (h) (3)	The name, title, phones number, and address, if known, of an official within each agency who will serve as a contact person for the agency.		N/A	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.		N/A	

Technical Area: Traffic and Transportation Project: Avenal Energy Project Technical Staff: David Young

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Page 6.11-26, 6.11-36, and 6.11-37 Section 6.11.2.3, 6.11.2.4, and 6.11.3	Yes	
Appendix B (g) (5) (A)	A regional transportation setting, on topographic maps (scale of 1:250,000), identifying the project location and major transportation facilities. Include a reference to the transportation element of any applicable local or regional plan.	Page 6.11-3	Yes	
Appendix B (g) (5) (B)	An identification, on topographic maps at a scale of 1:24,000 and a description of existing and planned roads, rail lines, including light rail, bike trails, airports, bus routes serving the project vicinity, pipelines, and canals in the project area affected by or serving the proposed facility. For each road identified, include the following information, where applicable:	Page 6.11-3	Yes	
Appendix B (g) (5) (B) (i)	Road classification and design capacity;	Page 6.11-8 Section 6.11.1.2 Table 6.11-1	Yes	
Appendix B (g) (5) (B) (ii)	Current daily average and peak traffic counts;	Page 6.1-9 Section 6.11.1.2 Table 6.11-2	Yes	
Appendix B (g) (5) (B) (iii)	Current and projected levels of service before project development, during construction, and during project operation;	Page 6.11-11-6.11-15,and 6.11-19-6.11-23 Section 6.11.2 and 6.11.2.2 Table 6.11-3 and 6.11-4A	Yes	

Technical Area: Traffic and Transportation Project: Avenal Energy Project Technical Staff: David Young

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (B) (iv)	Weight and load limitations;	Page 6.11-1 Section 6.11	Yes	
Appendix B (g) (5) (B) (v)	Estimated percentage of current traffic flows for passenger vehicles and trucks; and	Page 6.11-9 Section 6.11.1.1.1 Table 6.11-2	Yes	
Appendix B (g) (5) (B) (vi)	An identification of any road features affecting public safety.	Page 6.11-9	Yes	
Appendix B (g) (5) (C)	A description of any new, planned, or programmed transportation facilities in the project vicinity, including those necessary for construction and operation of the proposed project. Specify the location of such facilities on topographic maps at a scale of 1:24,000.	Page 6.11-10 Section 6.11.1.3	Yes	
Appendix B (g) (5) (D)	An assessment of the construction and operation impacts of the proposed project on the transportation facilities identified. Include anticipated project-specific traffic, estimated changes to daily average and peak traffic counts, levels of service, and traffic/truck mix, and the impact of construction of any facilities identified in subsection (g)(5)(C).	Page 6.11-17 and 6.11-26 Section 6.11.2.2 and 6.11.2.3	Yes	
Appendix B (g) (5) (E)	A discussion of project-related hazardous materials to be transported to or from the project during construction and operation of the project, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.	Page 6.11-25 and 6.11-26 Section 6.11.2.2.4 and 6.11.2.3.2	Yes	

Technical Area: Traffic and Transportation Project: Avenal Energy Project Technical Staff: David Young

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Page 6.11-38 Table 6.11-7	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Page 6.11-38 Table 6.11-7	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Page 6.11-38 Table 6.11-7	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Page 6.11-39 Table 6.11-8	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Page 6.11-39 and 2-114 Figure 2.5-1	Yes	

Technical Area: **Transmission System Eng.** Project: Avenal Energy project Technical Staff: Ajoy Guha, P. E.

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2) (A)	A discussion of the need for the additional electric transmission lines, substations, or other equipment, the basis for selecting principal points of junction with the existing electric transmission system, and the capacity and voltage levels of the proposed lines, along with the basis for selection of the capacity and voltage levels.	Section 1.5.3 , Page 1.5-3 Section 2.4, Page 2-89	Yes	
Appendix B (i) (2) (B)	A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity.		N/A	

Technical Area: Transmission System Eng. Project: Avenal Energy project Technical Staff: Ajoy Guha, P. E.

Project Manager: \_\_Jim McKinney \_\_\_\_ Docket: \_\_01-AFC-20 \_\_\_\_ Technical Senior: \_\_Al McCuen

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators. This description shall include power load flow diagrams which demonstrate conformance or nonconformance with utility reliability and planning criteria at the time the facility is expected to be placed in operation and five years thereafter; and	Section 2.4.5, Page 2-103 Preliminary Interconnection Study Report, Appendix 6.18-2 (Confidential)	No	Submit a System Impact Study for the first year operation of 600 MW generation interconnection performed by PG&E (optional) in summer peak and spring (off-peak) conditions, with the following provisions (refer to the preliminary interconnection study report):  a. Provide Power flow diagrams (MVA, % loading & per unit Voltages) for all N-0, N-1 and N-2 studies where overloads or voltage violations occur.  b. List mitigation measures considered (required) and those selected (Optional) for all criteria violations.  c. Analyze system for Transient Stability and Post-transient voltage conditions under critical N-1 and N-2 contingencies, and provide related plots, switching data and a list for voltage violations in the studies (Optional).  d. Analyze system for Fault currents and provide one table with fault currents before and after the interconnection and short circuit ratings of breakers in substations where fault currents will increase with the interconnection (Optional).  e. Provide electronic copies of *.sav and *.drw PSLF files for base cases & EPCL and/or AUTOCON contingency files (Optional).
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints.	Section 2.4, Page 2-89 Section 5.5, Pages 5-16 to 5-19	Yes	

Technical Area: Transmission System Eng. Project: Avenal Energy project Technical Staff: Ajoy Guha, P. E.

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (18) (A)	The locations and a description of the existing switchyards and overhead and underground transmission lines that would be affected by the proposed project.	Section 2.4, Page 2-89 Section 5.5, Pages 5-16 to 5-19	No	Provide a full description of downstream facilities requiring reconductoring or other modifications. For their environmental settings and impacts, provide routes and detail environmental analysis and any recommended mitigation measures.
Appendix B (g) (18) (B)	An estimate of the existing electric and magnetic fields from the facilities listed in (A) above and the future electric and magnetic fields that would be created by the proposed project, calculated at the property boundary of the site and at the edge of the rights of way for any transmission line. Also provide an estimate of the radio and television interference that could result from the project.		N/A	
Appendix B (g) (18) (C)	Specific measures proposed to mitigate identified impacts, including a description of measures proposed to eliminate or reduce radio and television interference, and all measures taken to reduce electric and magnetic field levels.		N/A	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Section 2.5, Tables 2.5-1 to 24, Pages 2-104 to 2-108	Yes	

Technical Area: Transmission System Eng. Project: Avenal Energy project Technical Staff: Ajoy Guha, P. E.

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 2.5, Pages 2-104 to 2-114	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).		Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.		Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 2.4.5, Page 2-103	No	Indicate when preliminary approval from California Independent System Operator will be obtained on completion of the System Impact study by PG&E.

Technical Area: Visual Resources Project: Avenal Energy Technical Staff: Eric Knight

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Pages 6.13-33 – 6.13-60; Sections 6.13.7 – 6.13.11 Pages 2-89 and 2-103; Figure 2.4-8; Section 2.4	Yes	
Appendix B (g) (6) (A)	Descriptions of the existing visual setting of the vicinity of the project, the region that can be seen from the vicinity of the project, and the proposed project site. Include:	Pages 6.13-3 – 6.13-10; Section 6.13.2 Page 6.13-22; Section 6.13.4	Yes	
Appendix B (g) (6) (A) (i)	Topographic maps at a scale of 1:24,000 of the areas from which the project may be seen, identification of the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(E);	Figure 6.13-22	Yes	
Appendix B (g) (6) (A) (ii)	Elevations of any existing structures on the site; and		N/A	
Appendix B (g) (6) (A) (iii)	The visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities.	Pages 6.13-3 – 6.13-10; Section 6.13.2 Page 6.13-22; Section 6.13.4	Yes	
Appendix B (g) (6) (B)	An assessment of the visual quality of those areas that will be impacted by the proposed project.	Pages 6.13-33 – 6.13-53; Section 6.13.7	Yes	

Technical Area: Visual Resources Project: Avenal Energy Technical Staff: Eric Knight

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (C)	After discussions with staff and community residents who live in close proximity to the proposed project, identify the scenic corridors and any visually sensitive areas potentially affected by the proposed project, including recreational and residential areas. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. For purposes of this section, a scenic corridor is that area of land with scenic natural beauty, adjacent to and visible from a linear feature, such as a road, or river.	Pages 6.13-33 – 6.13-53; Section 6.13.7 Figure 6.9-2	Yes	
Appendix B (g) (6) (D)	A description of the dimensions, color, and material of each major visible component of the project.	Page 6.13-12; Table 6.13-1	No	Please provide a description of the color and material of each major visible component of the project.
Appendix B (g) (6) (E)	Full-page color photographic reproductions of the existing site, and full-page color simulations of the proposed project in the existing setting from each location representative of the view areas most sensitive to the potential visual impacts of the project.	Figures 6.13-24 – 6.13-30	Yes	
Appendix B (g) (6) (F)	An assessment of the visual impacts of the project, including light and glare, and visible plumes.	Page 6.13-18; Sections 6.13.3.5 – 6.13.3.6  Page 6.13-59; Section 6.13.9.4	No	The AFC states (page 6.13-18) that there may be a few occasions during the year when visible plumes may be seen emanating from the HRSG stacks, but does not discuss what the visual impacts would be from the stack plumes. There is no discussion of the visible plumes that would emanate from the project's cooling tower. Please discuss the visual impacts of the cooling tower and HRSG stack plumes.

Technical Area: Visual Resources Project: Avenal Energy Technical Staff: Eric Knight

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Pages 6.13-60 - 6.13-61; Section 6.13.12 Pages 6.9-10 - 6.9-15; Tables 6.9-1 - 6.9-2	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Page 6.9-19; Table 6.9-4	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Pages 6.13-60 – 6.13-61; Section 6.13.12.1 Pages 6.9-10 - 6.9-15; Tables 6.9-1 - 6.9-2	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Page 6.9-17; Table 6.9-3	No	Please provide the name, title, phone number, and address of an official at the City of Avenal Public Works Department who will serve as a contact person for the agency.
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.		N/A	

Adequacy Issue:	Adequate X	Inadequat e	DATA A	ADEQUACY WORKSHEET	Revision No.	0 Dat	e October 22, 2001
Technical Area:	Waste Mana	agement	Project:	Avenal Energy Project	Technical	Staff:	Alvin Greenberg
Project Manager:	Jim Mckinney		Docket:	01-AFC-20	Technical	Senior:	Mike Ringer

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (1) (C)	A detailed description of the design, construction and operation of the facilities, specifically including the power generation, cooling, water supply and treatment, waste handling and control, pollution control, fuel handling, and safety, emergency and auxiliary systems, and fuel types and fuel use scenarios; and	Sec. 2.3 Sec. 6.14.2.5	Yes	
Appendix B (e) (2)	A discussion of how facility closure will be accomplished in the event of premature or unexpected cessation of operations.	Sec. 4.0	Yes	
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Sec. 6.14.1 Sec. 6.14.2 Sec. 6.14.3 Sec. 6.14.4 Table 6.14-2 Table 6.14-3	Yes	
Appendix B (g) (12) (A)	A Phase I Environmental Site Assessment for the proposed power plant site using methods prescribed by the American Society for Testing and Materials (ASTM) document entitled "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process" (Designation: E 1527-93, May 1993), which is incorporated by reference in its entirety; or an equivalent method agreed upon by the applicant and the CEC Staff that provides similar documentation of the potential level and extent of site contamination.	Appendix 6.14-1	Yes	

dequacy Issue:	Adequate	★ Inadequat e	DATA	ADEQUACY WORKSHEET	Revision No.	0	Date	October 22, 2001	
echnical Area	Waste Ma	nagement	Project	Avenal Energy Project	Technica	al Staff	. д	Jvin Greenberg	

Docket: 01-AFC-20

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (12) (B)	A description of each waste stream estimated to be generated during project construction and operation, including origin, hazardous or nonhazardous classification pursuant to Title 22, California Code of Regulations, § 66261.20 et seq., chemical composition, estimated annual weight or volume generated, and estimated frequency of generation.	Sec. 6.14.2.1 Sec. 6.14.2.2 Table 6.14-2 Table 6.14-3	Yes	
Appendix B (g) (12) (C)	A description of all waste disposal sites which may feasibly be used for disposal of project wastes. For each site, include the name, location, classification under Title 23, California Code of Regulations, § 2530 et seq., the daily or annual permitted capacity, daily or annual amounts of waste currently being accepted, the estimated closure date and remaining capacity, and a description of any enforcement action taken by local or state agencies due to waste disposal activities at the site.	Sec. 6.14.1.2 Table 6.14-1	Yes	
Appendix B (g) (12) (D)	A description of management methods for each waste stream, including methods used to minimize waste generation, length of on- and off-site waste storage, re-use and recycling opportunities, waste treatment methods used, and use of contractors for treatment.	Sec. 6.14.2.1 Sec. 6.14.2.2 Sec. 6.14.2.3 6.14.3	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 6.14-4 Sec. 6.14.5	Yes	

Project Manager:

Jim Mckinney

Mike Ringer

**Technical Senior:** 

Adequacy Issue:	Adequate X Inadequat e	DATA A	ADEQUACY WORKSHEET	Revision No. 0 D	ate October 22, 2001
Technical Area:	Waste Management	Project:	Avenal Energy Project	Technical Staff:	Alvin Greenberg
Project Manager:	Jim Mckinney	Docket:	01-AFC-20	Technical Senior:	Mike Ringer

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 6.14-4	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Table 6.14-4 Sec. 6.14.5	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 6.14-5	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.		N/A	

Technical Area: Water Resources Project: Avenal Energy Project Technical Staff: Lorraine White

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Sect. 1.5.5, Page 1-10 & 1-15 Table 1.5-1, Page 1-8 Sect. 1.8.4, Page 1-19 to 1-20 Sect. 2, Page 2-1 to 2-114 Figures 2.1-4 & 2.1-5 Sect. 5.4, 5-8 to 5-16, & 5-31 Sect. 6.1.3, Page 6.1-3 Sect. 6.5, Page 6.5-1 to 6.5-33 Appendix 6.5-2, Page 1, 24 & Table 3	No	Please describe the potential indirect effects of the proposed water supply, particularly those that may result from the proposed groundwater conservation efforts described on page 6.5-27.
Appendix B	All information required by the Regional Water			
(g) (14) (A)	Quality Control Board in the region where the project will be located to apply for:			
Appendix B (g) (14) (A) (i)	Waste Discharge Requirements; and		N/A	Project will employ a zero liquid wastewater discharge system.
Appendix B	a National Pollutant Discharge Elimination	Sect. 2.3.8, Page 2-45 to 2-	Yes	
(g) (14) (A) (ii)	System Permit.	26, & Page 2-49 to 2-51 Sect. 6.5.2, Page 6.5-21, 6.5-22, 6.5-25, & 6.5-26 P. 6.14-6 to 6.14-16, Tables 6.14-2 & 6.14-3 Appendix 6.5-1		
Appendix B (g) (14) (B)	A description of the hydrologic setting of the project. The information shall describe, in writing and on maps at a scale of 1:24,000, the chemical and physical characteristics of the following water bodies that may be affected by the proposed project:			

Revision No. 0 Adequacy Issue: Adequate Inadequate Date 11.6.01 **DATA ADEQUACY WORKSHEET** X

Technical Area: **Water Resources** Project: Avenal Energy Project Technical Staff: Lorraine White 01-AFC-20

Docket:

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Figure 6.3-2 and 6.3-4 Sect. 6.5.1.3, Page 6.5-5 Figure 6.5-5 to Figure 6.5- 8, Page 6.5-13 to 6.5-19 Appendix 6.5-2	Yes	
Appendix B (g) (14) (B) (ii)	Surface water bodies; and	Sect. 6.5.1.1, Page 6.5-2 to 6.5-3 Table 6.5-1, Page 6.5-4	No	Please provide information regarding the physical characteristics of the water from the San Luis Canal from which the project will obtain its water supplies (include flow rate, volumes, etc).
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones.	Page 6.5-5 Figure 6.5-2, Page 6.5-9	No	Please provide a description of the inundation areas depicted in Fig. 6.5-2.
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:			
Appendix B (g) (14) (C) (i)	Source of the water and the rationale for its selection, and if fresh water is to be used for power plant cooling purposes, a discussion of all other potential sources and an explanation why these sources were not feasible;	Page 2-44, 2-85 Page 6.5-15 to 6.5-18, 6.5-24 Sect. 5.4, Page 5-8 to 5-76, Page 5-31 Appendix 6.5-3	No	Please provide chemical and physical characteristics of "other water" sources identified on p. 2-4. Include in this response the rationale for its selection, when such water may be used and an analysis of impacts associated with its use.  P. 2-85 and 6.5-21 state that construction water will come from existing wells. Please clarify the location of these wells and the rationale of use from those proposed for back-up supplies.

Jim McKinney

Project Manager:

**Technical Senior:** 

Dick Anderson

Technical Area: Water Resources Project: Avenal Energy Project Technical Staff: Lorraine White

Project Manager: \_\_Jim McKinney \_\_\_\_\_ Docket: \_\_01-AFC-20 \_\_\_\_\_ Technical Senior: \_\_Dick Anderson

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (C) (ii)	The physical and chemical characteristics of the source and discharge water;	Table 6.5-1, Page 6.5-2 to 6.5-5 Table 6.5-3, Page 6.5-17 & 6.5-15 Appendix 6.5-2, Table 2	No	P. 2-85 and 6.5-21 state that construction water will come from existing wells. If different from those used for back-up supplies, please provide information on chemical and physical characteristics.  Please provide information on the anticipated quality of the water to be directed to the feed storage tank (see p. 2-42) and zero liquid discharge system.
Appendix B (g) (14) (C) (iii)	Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project; and	Table 2.3-1, p. 2-41 Table 2.3-2 Section 2.3.7 Page 2-86 Table 6.5-4, Page 6.5-23 & 6.5-24 Appendix 2-8, Table 2-8-1	Yes	
Appendix B (g) (14) (C) (iv)	A description of all facilities to be used in water conveyance, treatment, and discharge. Include a water mass balance diagram.	P. 2-41 to 2-45 Figure 2.3-12, 2.1-3A Table 6.5-2, Page 6.5-15 Page 6.5-22 Appendix 1-1 Appendix 2-1, Page 2-1-1 to 2-1-9 Appendix 2-7, 2-8 Appendix 6.5-2, Table 1	No	Please provide a complete description of the zero liquid discharge system to be used at the Avenal facility including all equipment, processes and treatments. Include in this information the expected water quality of the effluent directed to the zero discharge system, expected volumes of solid waste and frequency of materials removed from the site.  Please provide a description of facilities required to convey source water to the site from the San Luis Canal and the anticipated route.
Appendix B (g) (14) (D)	A description of pre-, and post-construction runoff and drainage patterns, including:	Sect. 2.3.17.2,Page 2-71 Figure 2.3-9, 2.3-10, 2.3-11 Figure 6.5-2, 6.5-9	Yes	
Appendix B (g) (14) (D) (i)	Precipitation and storm runoff patterns; and	Page 2-71 Figure 2.3-9 & 2.3-10 Pages 6.2-2 & 6.2-3 Page 6.4-1, 6.5-3	No	Please provide information on precipitation patterns (i.e., average monthly rainfall, etc). Only annual average information was provided.

Adequacy Issue:	Adequate	Inadequate	_ <b>x</b> _	DAT	A ADEQUACY WORKSHEET	Revision No.	0	Date	11.6.01	
Technical Area	Water Resource	es	—— Р	roject.	Avenal Energy Project	Technical St	aff <sup>.</sup>	l orrai	ne White	

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (14) (D) (ii)	Drainage facilities and design criteria.	Figure 2.3-11, Page 2-77 Figure 2.3-9, Page 2-73 Pages 6.5-21 – 6.5-22, 6.5- 26	Yes	
Appendix B (g) (14) (E)	An assessment of the effects of the proposed project on water resources. This discussion shall include:			
Appendix B (g) (14) (E) (i)	The effects of project demand on the water supply and other users of this source;	Sect. 6.5.2, Page 6.5-21 to 6.5-29 Referenced material (see Page 6.5-3), Page 6.5-23, 6.5-23	No	Please provide a project-specific assessment of the impacts associated with using surface water from the San Luis Canal. This assessment should include an evaluation of impacts (direct, indirect and cumulative) on users of the Canal resources.
Appendix B (g) (14) (E) (ii)	The effects of construction activities and plant operation on water quality; and	Page 2-86 Sect. 6.5.2.1, Page 6.5-21 to 6.5-23	No	Please discuss what is meant by "suitable quality" and the criteria used to make this determination.
Appendix B (g) (14) (iii)	The effects of the project on the 100-year flood plain or other water inundation zones.	Pages 6.5-22 & 6.5-26	Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 2.5-1, Page 2-106 Table 6.5-6, Page 6.5-30	No	Please identify the Department of Water Resources and / or SWRCB requirements, and the needed approval(s), for the proposed water exchange and provide required information related to this information (see Appendix 6.5-3).

Inadequate Revision No. 0 Adequacy Issue: Adequate Date 11.6.01 **DATA ADEQUACY WORKSHEET** X Technical Area: **Water Resources** Project: Lorraine White Avenal Energy Project Technical Staff: Project Manager: Jim McKinney Docket: 01-AFC-20 Technical Senior: Dick Anderson

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Table 2.5-5, Page 2-112 Table 6.5-6, Page 6.5-30	No	Please identify the Department of Water Resources and SWRCB as it relates to the applicable requirements and needed approval(s) for the proposed water exchange. Provide required information related to this information.
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Pages 6.5-18 to 6.5-21 Pages 6.5-28 to 6.5-30 Table 6.5-6, Page 6.5-30	No	Please discuss the conformity of the proposed project with the requirements and approvals required by the Department of Water Resources for the proposed water exchange.
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 2.5-5, Page 2-112 Table 6.5-7, Page 6.5-31	Yes	Please provide specified information for the appropriate contact(s) at DWR.
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Page 2-72 Figure 2.5-1, Page 2-114	No	Please provide a schedule for obtaining the required DWR approvals.

Technical Area: Worker Safety Project: Avenal Energy Project Technical Staff: Rick Tyler

Project Manager: Jim McKinney Docket: 01-AFC20 Technical Senior: Rick Tyler

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 6.17	Yes	
Appendix B (g) (11) (A)	A description of the safety training programs which will be required for construction and operation personnel.	Section 6.17.2.1.1	Yes	
Appendix B (g) (11) (B)	A complete description of the fuel handling system and the fire suppression system.	Sections 6.17.2.2.6	Yes	
Appendix B (g) (11) (C)	Provide draft outlines of the Construction Health and Safety Program and the Operation Health and Safety Program, as follows:	Section 6.17	Yes	
	Construction Health and Safety Program:  * Injury and Illness Prevention Plan (8 Cal. Code Regs., § 1509);		Yes	
	* Fire Protection and Prevention Plan (8 Cal. Code Regs., § 1920);		Yes	
	* Personal Protective Equipment Program (8 Cal. Code Regs., §§ 1514-1522)			
	Operation Health and Safety Program:  * Injury and Illness Prevention Program (8 Cal. Code Regs., § 3203);		Yes	
	* Fire Prevention Plan (8 Cal. Code Regs., § 3221);		Yes	

Adequacy Issue:	Adequate X Inadequate	DATA ADEQUACY WORKSHEET	Revision No. 0	Date 9/23/01
Technical Area:	Worker Safety	Project: Avenal Energy Project	Technical Staff:	Rick Tyler
Project Manager:	Jim McKinney	Docket: 01-AFC20	Technical Senior:	Rick Tyler

SITING REGULATIONS	Information	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
	* Emergency Action Plan (8 Cal. Code Regs., § 3220);		Yes	
	* Personal Protective Equipment Program (8 Cal. Code Regs. §§ 3401-3411).		Yes	
Appendix B (h) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	Table 6.17-2	Yes	
Appendix B (h) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 6.17-2	Yes	
Appendix B (h) (2)	A discussion of the conformity of the project with the requirements listed in subsection (h)(1)(A).	Section 6.17	Yes	
Appendix B (h) (3)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency.	Table 6.17-3	Yes	
Appendix B (h) (4)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 6.17.5	Yes	